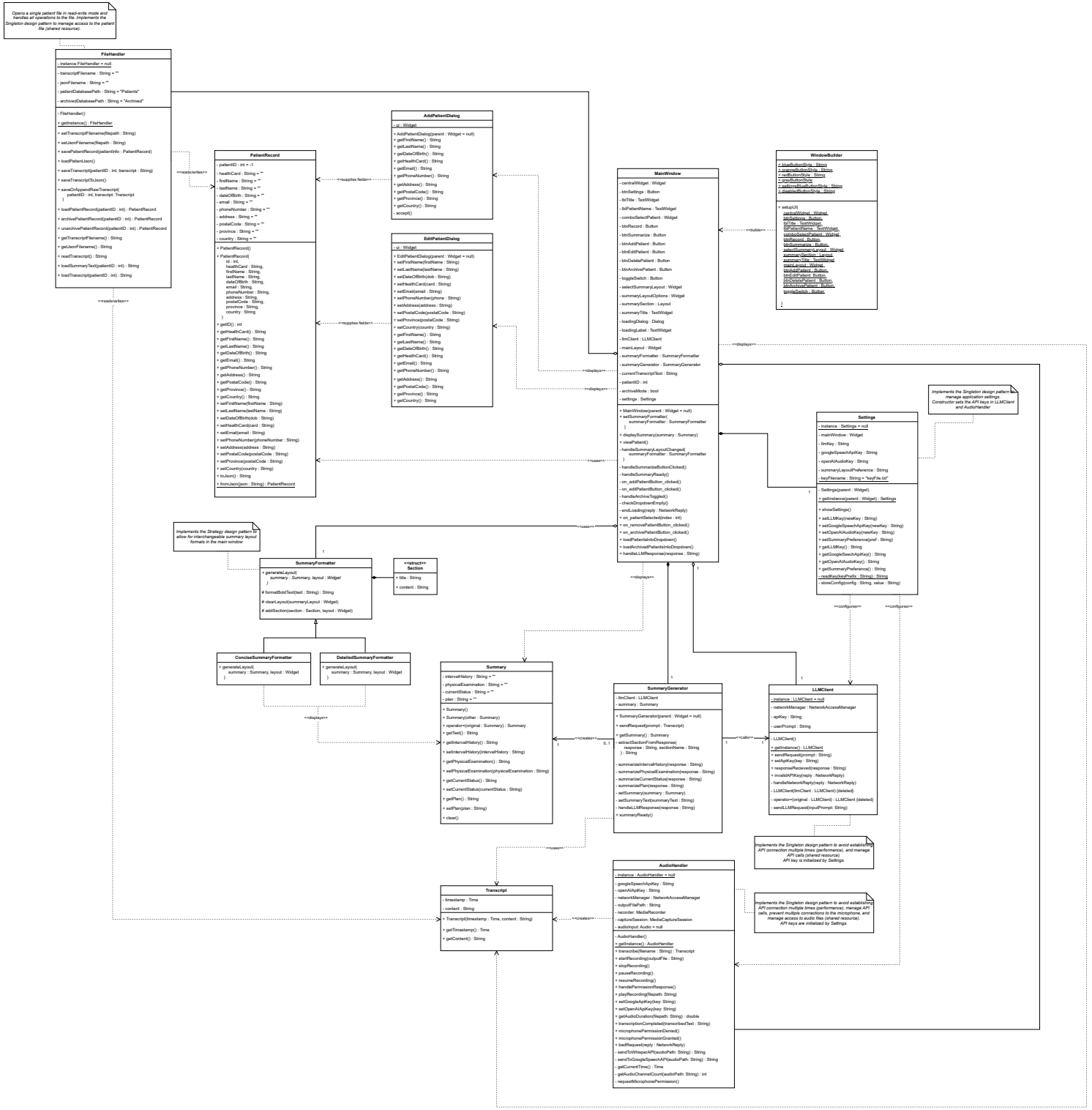
Opens a single patient file in read-write mode and handles all operations to the file. Implements the Singleton design pattern to manage access to the patient file (shared resource).
FileHandler
- instance FileHandler = null
- transcriptFilename : String = ""
- jsonFilename : String = ""
- patientDatabasePath : String = "Patients"
- archivedDatabasePath : String = "Archived"
- FileHandler()
+ getInstance() : FileHandler
+ setTranscriptFilename(filepath : String)
+ setJsonFilename(filepath : String)
+ savePatientRecord(patientInfo : PatientRecord)
+ loadPatientJson()
+ saveTranscript(patientID : int, transcript : String)
+ saveTranscriptToJson()
+ saveOnAppendRawTranscript(
patientID : int, transcript: Transcript
)
+ loadPatientRecord(patientID : int) : PatientRecord
+ archivePatientRecord(patientID : int) : PatientRecord
+ unarchivePatientRecord(patientID : int) : PatientRecord
+ getTranscriptFilename() : String
+ getJsonFilename() : String
+ readTranscript() : String
+ loadSummaryText(patientID : int) : String
+ loadTranscript(patientID : int) : String
<<reads/writes>>
PatientRecord
- patientID : int = -1
- healthCard : String = ""
- firstName : String = ""
- lastName : String = ""
- dateOfBirth : String = ""
- email : String = ""
- phoneNumber : String = ""
- address : String = ""
- postalCode : String = ""
- province : String = ""
- country : String = ""
+ PatientRecord()
+ PatientRecord(
id : int,
healthCard : String,
firstName : String,
lastName : String,
dateOfBirth : String,
email : String,
phoneNumber : String,
address : String,
postalCode : String,
province : String,
country : String
)
+ getID() : int
+ getHealthCard() : String
+ getFirstName() : String
+ getLastName() : String
+ getDateOfBirth() : String
+ getEmail() : String
+ getPhoneNumber() : String
+ getAddress() : String
+ getPostalCode() : String
+ getProvince() : String
+ getCountry() : String
+ setFirstName(firstName : String)
+ setLastName(lastName : String)
+ setDateOfBirth(dob : String)
+ setHealthCard(card : String)
+ setEmail(email : String)
+ setPhoneNumber(phoneNumber : String)
+ setAddress(address : String)
+ setPostalCode(postalCode : String)
+ setProvince(postalCode : String)
+ setCountry(country : String)
+ toJson() : String
+ fromJson(json : String) : PatientRecord
<<supplies fields>>
AddPatientDialog
- ui : Widget
+ AddPatientDialog(parent : Widget = null)
+ getFirstName() : String
+ getLastName() : String
+ getDateOfBirth() : String
+ getHealthCard() : String
+ getEmail() : String
+ getPhoneNumber() : String
+ getAddress() : String
+ getPostalCode() : String
+ getProvince() : String
+ getCountry() : String
- accept()
EditPatientDialog
- ui : Widget
+ EditPatientDialog(parent : Widget = null)
+ setFirstName(firstName : String)
+ setLastName(lastName : String)
+ setDateOfBirth(dob : String)
+ setHealthCard(card : String)
+ setEmail(email : String)
+ setPhoneNumber(phone : String)
+ setAddress(address : String)
+ setPostalCode(postalCode : String)
+ setProvince(postalCode : String)
+ setCountry(country : String)
+ getFirstName() : String
+ getLastName() : String
+ getDateOfBirth() : String
+ getHealthCard() : String
+ getEmail() : String
+ getPhoneNumber() : String
+ getAddress() : String
+ getPostalCode() : String
+ getProvince() : String
+ getCountry() : String
<<displays>>
MainWindow
- centralWidget : Widget
- btnSettings : Button
- txtTitle : TextWidget
- lblPatientName : TextWidget
- comboSelectPatient : Widget
- btnRecord : Button
- btnSummarize : Button
- btnAddPatient : Button
- btnEditPatient : Button
- btnDeletePatient : Button
- btnArchivePatient : Button
- toggleSwitch : Button
- selectSummaryLayout : Widget
- summaryLayoutOptions : Widget
- summarySection : Layout
- summaryTitle : TextWidget
- loadingDialog : Dialog
- loadingLabel : TextWidget
- llmClient : LLMClient
- mainLayout : Widget
- summaryFormatter : SummaryFormatter
- summaryGenerator : SummaryGenerator
- currentTranscriptText : String
- patientID : int
- archiveMode : bool
- settings : Settings
+ MainWindow(parent : Widget = null)
+ setSummaryFormatter(
summaryFormatter : SummaryFormatter
)
+ displaySummary(summary : Summary)
+ viewPatient()
- handleSummaryLayoutChanged(
summaryFormatter : SummaryFormatter
)
- handleSummarizeButtonClicked()
- handleSummaryReady()
- on_addPatientButton_clicked()
- on_editPatientButton_clicked()
- handleArchiveToggled()
- checkDropdownEmpty()
- sendLoading(reply : NetworkReply)
+ on_patientSelected(index : int)
+ on_removePatientButton_clicked()
+ on_archivePatientButton_clicked()
+ loadPatientsintoDropdown()
+ loadArchivedPatientsintoDropdown()
+ handleLLMResponse(response : String)
<<builds>>
WindowBuilder
+ blueButtonStyle : String
+ orangeButtonStyle : String
+ redButtonStyle : String
+ greyButtonStyle
+ greenyBlueButtonStyle : String
+ disabledButtonStyle : String
+ setupUI(
centralWidget : Widget,
btnSettings : Button,
txtTitle : TextWidget,
lblPatientName : TextWidget,
comboSelectPatient : Widget,
btnRecord : Button,
btnSummarize : Button,
selectSummaryLayout : Widget,
summarySection : Layout,
summaryTitle : TextWidget,
mainLayout : Widget,
btnAddPatient : Button,
btnEditPatient : Button,
btnDeletePatient : Button,
btnArchivePatient : Button,
toggleSwitch : Button
)
<<displays>>
Implements the Singleton design pattern to manage application settings.
Constructor sets the API keys in LLMClient and AudioHandler
Settings
- instance : Settings = null
- mainWindow : Widget
- llmKey : String
- googleSpeechApiKey : String
- openAIAudioKey : String
- summaryLayoutPreference : String
- keyFilename : String = "keyFile.txt"
- Settings(parent : Widget)
+ getInstance(parent : Widget) : Settings
+ showSettings()
+ setLLMKey(newKey : String)
+ setGoogleSpeechApiKey(newKey : String)
+ setOpenAIAudioKey(newKey : String)
+ setSummaryPreference(pref : String)
+ getLLMKey() : String
+ getGoogleSeechApiKey() : String
+ getOpenAIAudioKey() : String
+ getSummaryPreference() : String
- readKey(keyPrefix : String) : String
- storeConfig(config : String, value : String)
<<configures>>
<<configures>>
<<uses>>
Implements the Strategy design pattern to allow for interchangeable summary layout formats in the main window
SummaryFormatter
+ generateLayout(
summary : Summary, layout : Widget
)
formatBoldText(text : String) : String
clearLayout(summaryLayout : Widget)
addSection(section : Section, layout : Widget)
<<struct>>
Section
+ title : String
+ content : String
ConciseSummaryFormatter
+ generateLayout(
summary : Summary, layout : Widget
)
DetailedSummaryFormatter
+ generateLayout(
summary : Summary, layout : Widget
)
<<displays>>
Summary
- intervalHistory : String = ""
- physicalExamination : String = ""
- currentStatus : String = ""
- plan : String = ""
+ Summary()
+ Summary(other : Summary)
+ operator=(original : Summary) : Summary
+ getText() : String
+ getIntervalHistory() : String
+ setIntervalHistory(intervalHistory : String)
+ getPhysicalExamination() : String
+ setPhysicalExamination(physicalExamination : String)
+ getCurrentStatus() : String
+ setCurrentStatus(currentStatus : String)
+ getPlan() : String
+ setPlan(plan : String)
+ clear()
<<creates>>
SummaryGenerator
- llmClient : LLMClient
- summary : Summary
+ SummaryGenerator(parent : Widget = null)
+ sendRequest(prompt : Transcript)
+ getSummary() : Summary
- extractSectionFromResponse(
response : String, sectionName : String
) : String
- summarizeIntervalHistory(response : String)
- summarizePhysicalExamination(response : String)
- summarizeCurrentStatus(response : String)
- summarizePlan(response : String)
- setSummary(summary : Summary)
- setSummaryText(summaryText : String)
- handleLLMResponse(response : String)
+ summaryReady()
<<calls>>
LLMClient
- instance : LLMClient = null
- networkManager : NetworkAccessManager
- apiKey : String
- userPrompt : String
- LLMClient()
+ getInstance() : LLMClient
+ sendRequest(prompt : String)
+ setApiKey(key : String)
+ response$recieved(response : String)
+ invalidAPIKey(reply : NetworkReply)
- handleNetworkReply(reply : NetworkReply)
- LLMClient(llmClient : LLMClient) (deleted)
- operator=(original : LLMClient) : LLMClient (deleted)
- sendLLMRequest(inputPrompt: String)
Implements the Singleton design pattern to avoid establishing API connection multiple times (performance), and manage API calls (shared resource).
API key is initialized by Settings.
<<uses>>
Transcript
- timestamp : Time
- content : String
+ Transcript(timestamp : Time, content : String)
+ getTimestamp() : Time
+ getContent() : String
<<creates>>
AudioHandler
- instance : AudioHandler = null
- googleSpeechApiKey : String
- openAIApiKey : String
- networkManager : NetworkAccessManager
- outputFilePath : String
- recorder: MediaRecorder
- captureSession: MediaCaptureSession
- audioInput: Audio = null
- AudioHandler()
+ getInstance() : AudioHandler
+ transcribe(filename : String) : Transcript
+ startRecording(outputFile : String)
+ stopRecording()
+ pauseRecording()
+ resumeRecording()
+ handlePermissionResponse()
+ playRecording(filepath: String)
+ setGoogleApiKey(key: String)
+ setOpenAIApiKey(key: String)
+ getAudioDuration(filepath: String) : double
+ transcriptionCompleted(transcribedText : String)
+ microphonePermissionDenied()
+ microphonePermissionGranted()
+ badRequest(reply : NetworkReply)
- sendToWhisperAPI(audioPath: String) : String
- sendToGoogleSpeechAPI(audioPath: String) : String
- getCurrentTime() : Time
- getAudioChannelCount(audioPath: String) : int
- requestMicrophonePermission()
Implements the Singleton design pattern to avoid establishing API connection multiple times (performance), manage API calls, prevent multiple connections to the microphone, and manage access to audio files (shared resource).
API keys are initialized by Settings.
<<displays>>